United States
Department of the Interior
Geological Survey

Multichannel Seismic-Reflection Profiles Collected In 1979 in the Eastern Pacific Ocean Off the California Coast South of Pt. Conception

By
Dennis M. Mann and James K. Crouch

U.S. Geological Survey
OPEN FILE REPORT
83-593

Multichannel Seismic-Reflection Profiles Collected In 1979 in the Eastern Pacific Ocean Off the California Coast South of Pt. Conception

By
Dennis M. Mann and James K. Crouch

During the fall of 1979 the U.S. Geological Survey (USGS) collected approximately 1103 km. of 24 channel seismic-reflection data across the continental margin in the eastern Pacific Ocean off the California coast south of Point Conception. The profiles were collected on the USGS Research Vessel S.P. Lee using a sound source of five airguns totaling 1326 in^3. The recording system consisted of a 24-group streamer, 2400 meters long and a GUS (Global Universal Science) model 4200 digital recording instrument. Records were sampled at a 2-millisecond rate and later processed at a 4-millisecond rate. Navigational control for the survey was by satellite fixes augmented by Loran C. (Rho-Rho) and Doppler-sonar bottom-track navigation.

The seismic reflection records vary from 8 to 12 seconds in length depending on water depth and geologic structure. The data have been edited, stacked, deconvoluted, filtered, and graphically displayed on an electrostatic plot. All processing was carried out at the USGS Marine Geology Processing Center in Menlo Park, California. Figure 1 is a trackline chart showing shotpoint navigation. Note that the signal-noise ratio of lines 907 to 909 is poor due to heavy seas encountered during that part of the cruise.

The data are available in 3 formats:

1) Electrostatically plotted profiles which were deconvolved and filtered after stacking. PDF files are available.
   http://www.ngdc.noaa.gov/mgg/seismicreflection/index.html
   NOAA/National Geophysical Data Center
   Boulder, CO 80305
   USA
2) Digital magnetic stack data. Copies of the stack data and a description of the format can be obtained at the requesters expense by contacting:
   Data Curator
   Pacific Branch of the Marine Geology
   U.S. Geological Survey
   345 Middlefield Road
   Menlo Park, CA 94025
3) Digital magnetic demultiplexed data. Copies of the demultiplexed data and a description of the format can be obtained at the requestors expense by contacting the above address, USGS, Menlo Park.

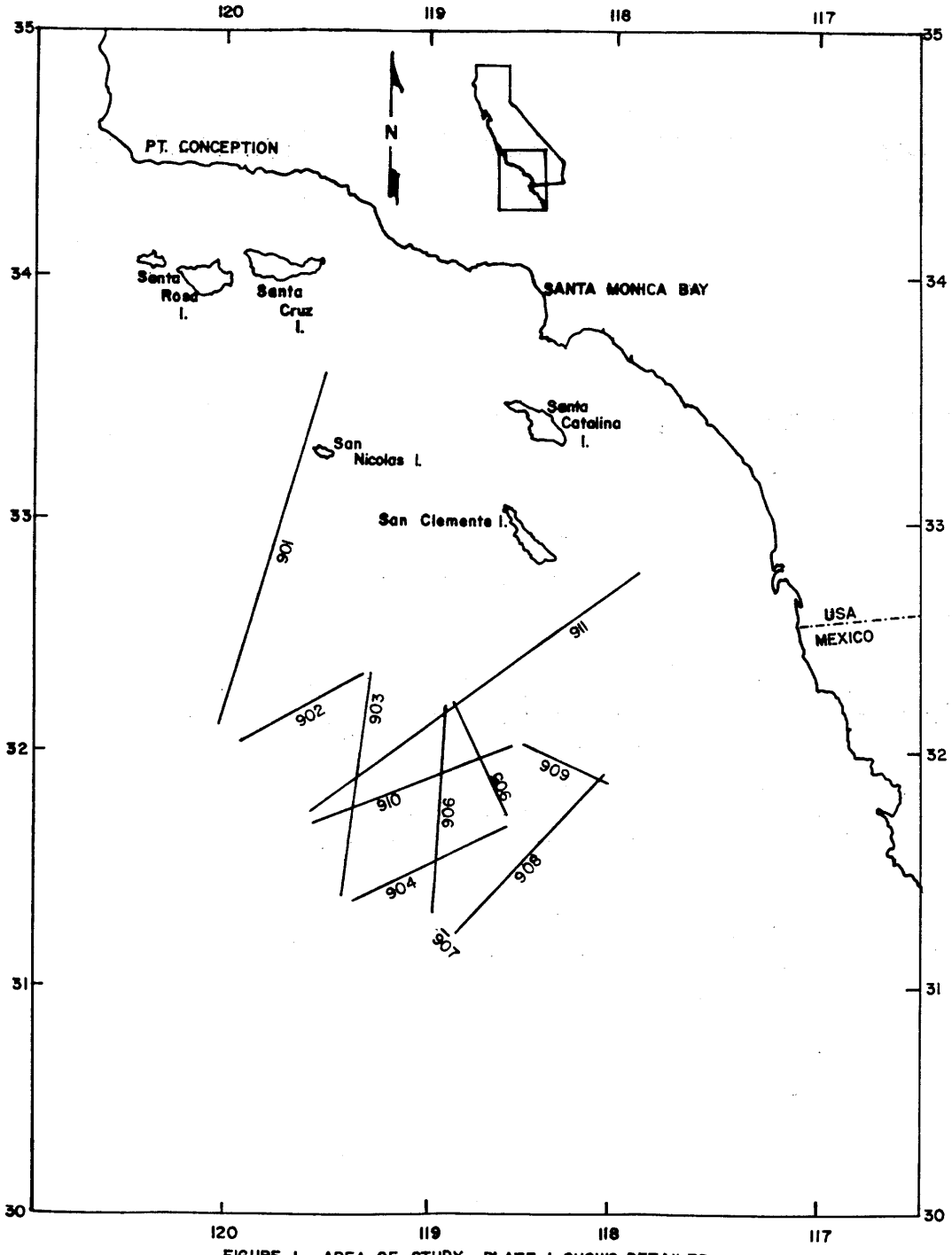

FIGURE 1. AREA OF STUDY. PLATE 1 SHOWS DETAILED LOCATION OF TRACKLINES AND SHOTPOINTS